MBTA TIGGER Project

APTA Sustainability Conference
August 2, 2011

massDOT
Massachusetts Department of Transportation

Reduction in Energy Consumption

- *Largest single consumer of electricity in Massachusetts (435,000,000 kWh/year)*
- *Energy costs represent a significant component of the operating budget*
- *Northeast States have highest electricity costs as well as high GHG emissions from power plants*

MBTA TIGGER APPLICATION

Energy Efficiency and the Yearly Operation of Renewable Energy

EEYORE

Elements of TIGGER Proposal

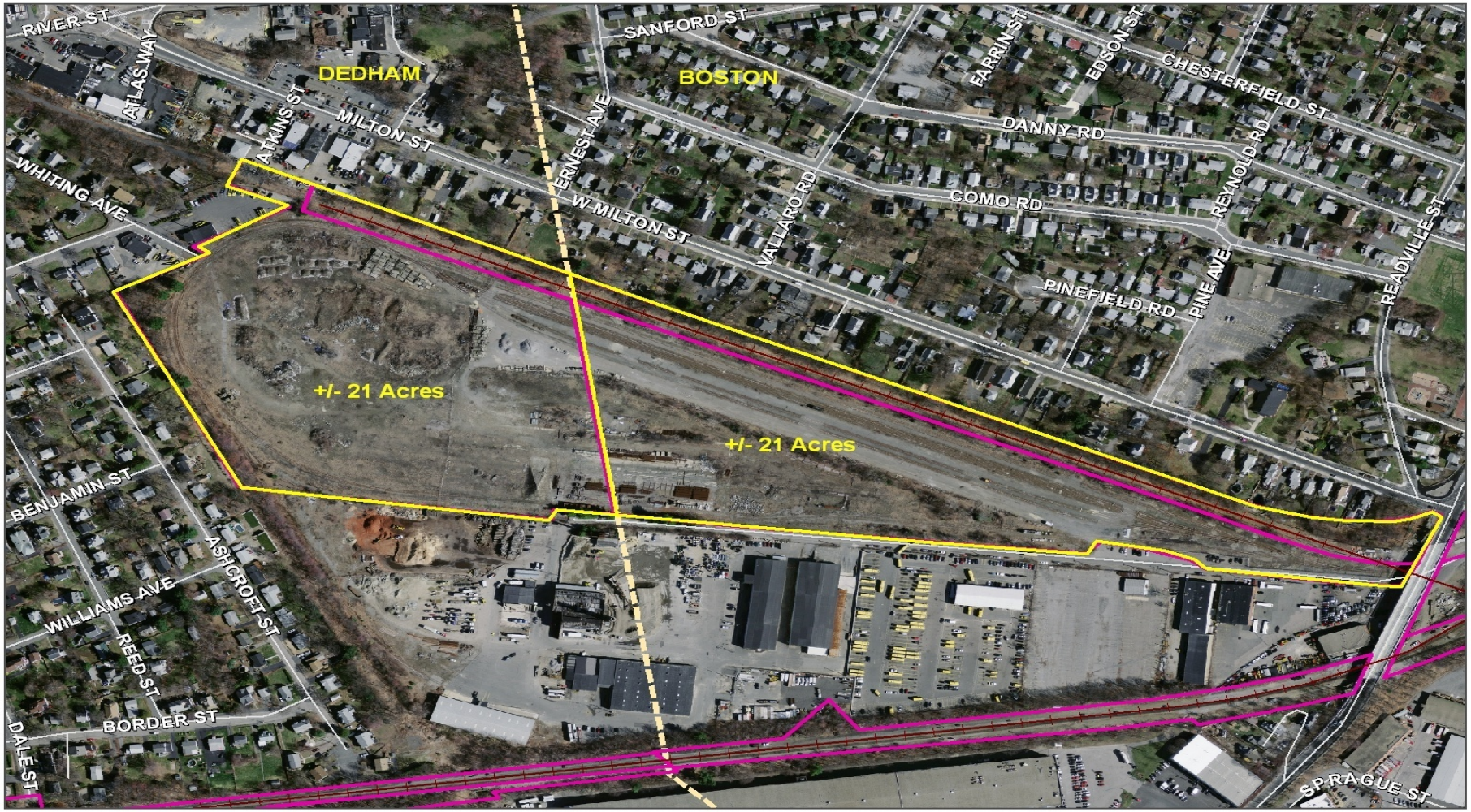
- Developed a Proposal for a bundle of Renewable Energy Projects:
  - Three Wind Turbines
  - Three Solar/PV Sites
  - Electric Vehicle Charging Stations
  - 10 MW of Generating Capacity

MBTA Wind Energy Projects

- *Kingston Wind 100kW – Fall 2011*
  - *Projected production: 161,000 kWh/yr*
  - *Approximately 65% of the electricity needs of the facility*
- *Bridgewater Wind 600kW – Spring 2012*
  - *Projected production: 945,000 kWh/yr*
  - *Production will exceed demand – excess power returned to the grid*
- *Anticipated Annual Savings of Two Projects -- $100,000/year*

Commuter Rail Maintenance Facility

Readville Yard 5



Readville Yard
Dedham & Boston, MA

MBTA Rail Station
MBTA Rail Line
MBTA Owned Property
Town Lines

0 120 240 480 720

TRA Transit Realty Associates

June 2011/JJ
Base Map Source:

Third Party Solar Projects

- *Maximize the value of our real estate assets by making them available for private solar developers*
- *Enter into a financial arrangement with the developer*
  - *Purchase the electricity at lower cost*
  - *Lease payment for the use of the land*

Renewable Energy Purchase

- MBTA Power Purchase
  - For the 1st time, MBTA is seeking an option for including Renewable Energy
    - Standard Energy Portfolio
    - Alternative Pricing for 15%, 20%, and 25% Renewables
    - Will be the MBTA's most progressive energy procurement to date

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